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REMARKS

Claims 1, 2, 4-21, 34, 40-50, and 54-71 are currently pending. Claims 3, 22-33, 35-39, and 51-53 are canceled. Claims 56-71 are newly added.

1. Claims 1, 2, 4-21, 34, 40-50, and 54-55 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In particular, the PTO appears to object to the terms graphite fibers and ceramic fibers. Claims 1, 34, 40 and 45 have been amended to recite a flexible support comprising a fabric, the fabric being a woven fabric or intermeshing of random fibrous strands. Support for such an amendment is found in paragraph [0016] of the present specification. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. 112, first paragraph, rejection.

2. Claims 1, 2, 4-9, 11-14, 16-21, 40-49 and 54-55 were rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson (US 2,839,651, herein "Erickson") in view of Green et al. (US 5,951,895, herein "Green"), and further in view of Guiles et al. (US 6,056,844, herein "Guiles") or Stark et al. (US 2002/0113066 A1, herein "Stark"). Applicants respectfully traverse this rejection.

Claim 1 is directed to a heating belt including a flexible support and a composite material coated on the flexible support. The flexible support comprises a fabric. The fabric is a woven fabric or an intermeshing of random fibrous strands. The composite material includes a polymer and inductively-heatable particles.

Claim 34 is directed to a heating component including a flexible support and a composite material coated on the flexible support. The flexible support includes a fabric. The fabric is a woven fabric or an intermeshing of random fibrous strands. The composite material includes a silicone polymer and inductively-heatable particles.

Claim 40 is directed to a system for heating an article. The system includes a heating belt and a field generator for inducing a field about the heating belt to heat inductively-heatable particles. The heating belt includes a flexible support and a composite material coated on the flexible support. The flexible support includes a fabric. The fabric is a woven fabric or an

intermeshing of random fibrous strands. The composite material includes a polymeric matrix and inductively-heatable particles.

Claim 45 is directed to a method for heating an article. The method includes placing the article in proximity to a heating belt and inducing a field about the heating belt. The heating belt includes a flexible support including a fabric. The fabric is a woven fabric or an intermeshing of random fibrous strands. The heating belt also includes a composite material coated on the flexible support. The composite material includes a polymeric matrix and inductively-heatable particles.

Primarily, the PTO relies on Erickson. Erickson is directed to a belt conveyor system and is directed to heating conveyor belts and such systems. Erickson teaches use of load bearing metal cables for inductive heating and to provide a structural backbone of the belt. Erickson does not disclose a flexible support including a fabric and does not disclose use of inductively-heatable particles.

In an attempt to address the deficiencies of Erickson, the PTO appears to turn to Green and either Guiles or Stark. Green is directed to a method and a cooking machine for continuously heat treating a food product. Heat transfer to the food product is accomplished on a conveyor in a processing chamber by means of convection from a heat transfer medium and by direct contact of the underside of the food product with the conveyor. An endless band of plastic material is reinforced. The belt can be reinforced with glass fibers, a stainless steel mesh, or reinforcing fibers of synthetic polymers, e.g., Kevlar. *See Green, column 3, lines 11-16.* Green does not indicate whether the reinforcement forms a woven fabric or an intermeshing of random fibrous strands. Further, Green fails to teach or suggest inductively-heatable particles. Guiles and Stark teach polymer induction bonding technology and provide for heating of polymeric materials by mixing ferromagnetic particles in a polymer to be heated.

In the Office Action, the PTO asserts that it would have been obvious to one of ordinary skill in the art to modify Erickson to use the glass fibers or polymer fibers of Green in the flexible belt in addition to load bearing metal cables. However, there is no teaching or suggestion in the references that one of skill in the art would have added glass or polymer reinforcement to a flexible belt that already includes load bearing metal cables. After the

addition, the PTO then asserts that, having added redundant support material to the belt of Erickson, it would be obvious to replace the metal support materials with the inductively-heatable particles of Guiles or Stark.

In the alternative, it appears that the PTO proposes that one skilled in the art would have replaced of the load bearing metal cables that serve as both a structural backbone and heating elements with the glass fibers or polymer fibers of Green. Such a modification would remove inductively-heatable cables and thus, the inductively-heatable property of the belt. In an attempt to regain the inductively-heatable property of the belt, the PTO then asserts that it would have been obvious to add the inductively-heatable particles of Guiles or Stark. In short, the PTO argues that the dual function cables (structural support and inductive heating element) would have been replaced with two features, non-inductively heatable fibers and, separately, inductively heatable particles.

In either case, the PTO is performing reconstruction of the claimed invention without adequate suggestion in the prior art. In fact, the PTO proposes replacing a single element (i.e., the load bearing metal cables) with two elements (i.e., the fibers of Green and the inductively heatable particles of Guiles or Stark) in the absence of any teaching or suggestion in the references to do so. In other words, the references nowhere teach or suggest the replacement of the single element (metal cables) with two elements (fibers and particles). Any proposal to do so is thus a hindsight reconstruction of the claimed invention by the PTO.

Further, Applicants have discovered that the bifurcation of functionality into two different components (i.e., use of a fabric support and inductively-heatable particles) provides technical advantages, such technical advantages being indicative of non-obviousness. The belt construction including both fabric support and inductively-heatable particles permits formation of a strong flexible conveyor belt with inductive-heating properties in which the mechanical properties and the heating properties can be varied independently. In particular, the strength or rigidity of the construction may be altered independently of the heat output or maximum temperature achievable by the belt construction. In contrast, traditional belts utilizing a single component, such as load bearing metal cables, inductively heat the load bearing support. As such, in the traditional belts, an alteration in the configuration of the load bearing support alters

inductive heating of the belt and vice versa, often having an undesired effect. As such, the claimed invention provides unique advantages relative to traditional belt constructions.

For at least the foregoing reasons, claims 1, 2, 4-9, 11-14, 16-21, 40-49, and 54-55 are patentable over Erickson in view of Green and further in view of Guiles or Stark. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. 103(a) rejection.

3. Claims 10, 15, 34, and 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson in view of Green and either Guiles or Stark and further in view of Kinouchi et al. (US 6,087,641, herein "Kinouchi"). Applicants respectfully traverse this rejection.

Kinouchi discloses a fixing device having a fixing belt formed of a ferromagnetic metallic material. A separation layer for preventing adhesion of a developing agent (toner), for example, a layer of fluororesin, silicone resin, or silicone rubber may be coated on the surface of the fixing belt. Kinouchi fails to teach or suggest a flexible support including a fabric, fails to teach or suggest inductively-heatable particles, and moreover fails to overcome the deficiencies of the proposed modification of the references discussed above. Further, Kinouchi and the cited references fail to teach or suggest use of silicone polymer as part of a polymer matrix in which inductively-heatable particles may be included. Accordingly, reconsideration and withdrawal of the 35 U.S.C. 103(a) rejection is respectfully requested.

Applicant(s) respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

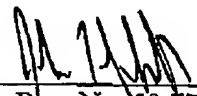
Should the Examiner deem that any further action by the Applicants would be desirable for placing this application in even better condition for issue, the Examiner is requested to telephone Applicants' undersigned representative at the number listed below.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

Date

4.4.07


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